

Clinton Water Department Implements New Arsenic Treatment Systems

The Town of Clinton Water Department has installed new state of the art treatment systems at two of its well facilities this summer, in response to a recent mandate imposed by the NJDEP under the Safe Drinking Water Act Regulations.

The USEPA published the Arsenic Rule, which established a new water quality standard or a new Maximum Contaminant Level (MCL) for community water systems using groundwater sources serving 10,000 people or more. The MCL for arsenic was lowered from 50 parts per billion (ppb) to 10 ppb nationally by the Environmental Protection Agency (EPA), and further reduced to 5 ppb in New Jersey by the NJDEP. This regulatory change went into effect on January 23, 2006 and established a compliance timeline of 2 years for those sources that are found to exceed the new standard.

Arsenic is a naturally occurring semi-metal element, which is odorless and tasteless. Prolonged human exposure to arsenic can cause both short and long term health effects, but only at concentrations much greater than the drinking water standard.

Between 2004 and 2006, two out of nine Town of Clinton well sources exhibited arsenic concentrations in excess of the NJ standard. Although the concentrations were below the federal standard of 10 ppb, they exceeded the State standard of 5 ppb. As precautionary measure, the Town of Clinton suspended use of those two wells in 2006 until treatment could be designed, permitted and implemented.

The arsenic treatment selected by the Clinton Water Department adsorbs on a ferric oxide media. The system is automated and will treat the well water continuously for two to three years before media replacement will be required.



*New Arsenic Adsorption Treatment Units,
typical of two installations in the Clinton Water System*

The implementation of the treatment equipment required related well facility improvements. New disinfection equipment, electrical upgrades and facility improvements were incorporated with the project. The project was designed by the Water Department's consultant, Suburban Consulting Engineers, Inc. and constructed by CFM Construction of Stirling, New Jersey. The treatment systems were substantially completed in August of this year, and are now being placed into service.

The total cost of the project was \$440,000.

With the start-up of the two new treatment systems, the Clinton Water Department has now restored its full treatment and supply capacity.

For more information, please contact the Town of Clinton Water Department at 43 Leigh Street, PO Box 5194, Clinton, NJ 08809.